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Notice of Allowability	Application No.	Applicant(s)	
	10/672,576	BORCHERT ET AL.	
	Examiner	Art Unit	
	Anjan K Deb	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to response to election/restriction filed 08/06/2004.
2. ☒ The allowed claim(s) is/are 1-28.
3. ☒ The drawings filed on 29 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>09/29/2003</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. Applicant's election with traverse of claims 1-26 in the reply filed on 08/06/2004 is acknowledged. The traversal is on the ground(s) that claims 1 - 26 involve effectively determining the Velocity of Propagation, in determining the location of a Fault and claims 27-28 simply focus on an intermediate stage of the invention. This is found persuasive consequently election restriction requirement of the previous office action is withdrawn

Allowable Subject Matter

2. Claims 1-28 are allowed.

Reasons for Allowance

3. The following is an examiner's statement of reasons for allowance:

The primary reason for allowance of the claims 1-26 is the inclusion of the means for receiving unexpected burst of high frequency signal not transmitted by first and second transmitter/receiver means in combination with remaining claimed limitations.

The primary reason for allowance of the claims 27,28 is the inclusion of dividing the known spatial separation of first and second transmitter means by the time difference determined in step d of the claimed invention in combination with remaining claimed limitations.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

YEAGER (US 3,729,654) discloses method of determining the location of a fault on a transmission line (24) comprising first and second transmitter/receiver means (27,28) (carrier equipment) separated from one another by a known spatial distance along the transmission line for transmitting high frequency signals on the line. Yeager lacks means for receiving unexpected burst of high frequency signal not transmitted by first and second transmitter/receiver means and does not disclose determining the velocity of propagation of the high frequency signals transmitted on the line (27,28)(Fig. 1).

BARJOT et al. (US 3,586,968) discloses determining the location of a fault in a transmission line by repeatedly sending high frequency test signals on the line from first and second transmitter/receiver means (column 3 lines 3-20)(Fig. 1). BARJOT et al lacks means for receiving unexpected burst of high frequency signal not transmitted by first and second transmitter/receiver means and does not disclose determining the velocity of propagation of the high frequency signals transmitted on the line.

CHONG (US 6,177,801 B1) discloses a method of determining the velocity of propagation of high frequency signals (column 20 lines 35-41) in a transmission line (30) for locating a fault (bridge tap) in the transmission line comprising sending test signals from first

Art Unit: 2858

and second transmitter/receiver means (10,20) on the transmission line (Fig. 1A). CHONG does not disclose dividing the known spatial separation of first and second transmitter means by the time difference determined in step d of the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2858

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Anjan K. Deb whose telephone number is (571)-272-2228. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le, can be reached at (571) 272-2233.



Anjan K. Deb

Patent Examiner

Art Unit: 2858

8/24/04

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